

Recovery Plan Action Status

Plan Name: Recovery Plan for the Sacramento-San Joaquin Delta Native Fishes

Plan Status: Final

Plan Date: 26-Nov-96

Lead Agency: USFWS

Lead Office: San Francisco Bay - Delta Fish And Wildlife

(916)
930-3642)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Delta smelt (Hypomesus transpacificus)	3	1111	Increase Delta inflows	Not Started			State Water Project, Central Valley Project	Acquisition	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	1112	Increase freshwater flows: provide transport inflows-outflows on the Sacramento River	Not Started			State Water Project, U.S. Federal Energy Regulatory Commission, Central Valley Project, U.S. Army Corps of Engineers, Private landowners	Acquisition	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	1113	Increase freshwater flows: provide transport inflows-outflows on the San Joaquin River	Not Started			State Water Project, U.S. Federal Energy Regulatory Commission, Central Valley Project, U.S. Army Corps of Engineers, Private landowners	Acquisition	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	11141	Increase freshwater flows: place 2 ppt at Roe Island	Not Started			State Water Project, U.S. Federal Energy Regulatory Commission, Central Valley Project, U.S. Army Corps of Engineers, Private landowners	Acquisition	Labor type not yet selected	
Delta smelt (Hypomesus transpacificus)	1	11142	Increase freshwater flows: place 2 ppt at Chipps Island	Not Started			State Water Project, U.S. Federal Energy Regulatory Commission, Central Valley Project, U.S. Army Corps of Engineers, Private landowners	Acquisition	Internal Technical Assistance	

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Delta smelt (Hypomesus transpacificus)	1	11143	Increase freshwater flows: place 2 ppt at the confluence	Not Started			State Water Project, U.S. Federal Energy Regulatory Commission, Central Valley Project, U.S. Army Corps of Engineers, Private landowners	Other	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1121	Develop Delta habitat and vegetation zones	Not Started			Pacific Gas and Electric Company, State Water Project, U.S. Army Corps of Engineers	Acquisition	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1122	Develop Suisun Marsh and Suisun Bay habitat and vegetation zones	Not Started			Pacific Gas and Electric Company, State Water Project, U.S. Army Corps of Engineers	Acquisition: Easement	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	11221	Restore spawning habitat in up-stream freshwater areas	Not Started			Pacific Gas and Electric Company, State Water Project, California Department of Fish and Game, U.S. Army Corps of Engineers	Acquisition: Fee Title	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	11222	Restore rearing habitat in tidal areas	Ongoing Current	FY 2005		Pacific Gas and Electric Company, State Water Project, California Department of Fish and Game, U.S. Army Corps of Engineers	Research: General	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	12111	Reduce losses to water diversions: provide flows and control pumping	Not Started			State Water Project, Central Valley Project	Acquisition	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	12112	Reduce losses to water diversions: provide flows on Sacramento River to protect salmon smolts	Unknown			State Water Project, Central Valley Project	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	12113	Reduce losses to water diversions: provide flows on San Joaquin River to protect salmon smolts	Not Started			State Water Project, Central Valley Project	Other	Internal Technical Assistance	

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Delta smelt (Hypomesus transpacificus)	3	12121	Change facility operations	Not Started			State Water Project, Central Valley Project	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	12122	Remove green sturgeon from Clifton Court Forebay	Not Started			State Water Project, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1213	Reduce predation at Clifton Court Forebay and other diversions	Not Started			State Water Project, Central Valley Project	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1214	Screen diversions at Rock Slough	Ongoing Not Current	FY 2005		Contra Costa Water District, Central Valley Project, California Department of Fish and Game	Other	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	1215	Restrict CCWD diversions with recent-time monitoring or a seasonal "window"	Ongoing Not Current	FY 2005		Contra Costa Water District, Central Valley Project, California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	12161	Restrict NBA diversions with recent-time monitoring or a seasonal "window"	Ongoing Current	FY 2005		California Department of Water Resources, California Department of Fish and Game	Other	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1217	Evaluate diversion of San Joaquin Salmon at Old River	Ongoing Current	FY 2005		State Water Project, Central Valley Project, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	12181	Close Delta cross channel gates with recent time monitoring or a seasonal "window"	Ongoing Current	FY 2005			Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	12191	Evaluate Georgiana Slough hydroacoustic barrier or deflector	Discontinued	FY 2005		Central Valley Project, California Department of Fish and Game, U.S. Army Corps of Engineers	Research	Internal Field Assistance	
Delta smelt (Hypomesus transpacificus)	2	1221	Reduce entrainment at PG+E and other private diverters	Ongoing Current	FY 2005		Pacific Gas and Electric Company, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management	Internal Technical Assistance	

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Delta smelt (Hypomesus transpacificus)	3	12221	Screen Delta agricultural diversions	Ongoing Not Current	FY 2005		U.S. National Marine Fisheries Service (NOAA Fisheries), U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	12222	Consolidate Delta agricultural	Ongoing Not Current	FY 2005		U.S. Army Corps of Engineers	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	12223	Restrict Delta Agricultural diversions when fish are present	Unknown			California Department of Fish and Game, U.S. Army Corps of Engineers	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	1311	Time dredging for minimal tidal movement	Not Started			California Department of Fish and Game, U.S. Army Corps of Engineers	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	1312	Use slit curtains or suction dredges	Ongoing Current	FY 2005		U.S. Army Corps of Engineers	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	132	Reduce effects of dredging: eliminate loss of shallow-water habitat	Ongoing Current	FY 2005		State Water Project, Central Valley Project, U.S. Army Corps of Engineers	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1411	Change application practices	Unknown			U.S. Department of Agriculture, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1412	Change residence times	Unknown			U.S. Department of Agriculture, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1413	Retire agricultural lands	Unknown			U.S. Fish and Wildlife Service	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1414	Control point sources of toxic substances	Unknown			California State Water Resources Control Board, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	1421	Separate industrial from municipal sewage	Unknown			California State Water Resources Control Board, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	

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Delta smelt (Hypomesus transpacificus)	3	1422	Provide tertiary sewage treatment	Unknown			California State Water Resources Control Board, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1431	Monitor urban non-point sources	Unknown			California State Water Resources Control Board, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	1432	Educate public and private sectors	Not Started			U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	211	Institute Selective San Joaquin recreational salmon fishery	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	212	Change San Joaquin River angling regulations	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	221	Halt green sturgeon sportfishing	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	222	Educate anglers to recognize green sturgeon	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	223	Tag green sturgeon	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	23	Control illegal harvest	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	241	Institute selective commercial fishery for Chinook salmon	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	1	242	Reduce effects of harvest: eliminate harvest	Not Started			California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	251	Develop artificial propagation techniques	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Work type not yet selected	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	252	Mark hatchery fish	Unknown			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research	Internal Technical Assistance	

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Delta smelt (Hypomesus transpacificus)	2	31	Regulate ship ballast water discharges	Unknown			United States Coast Guard	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	32	Control existing harmful introduced species	Unknown			State Water Project, Central Valley Project, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	33	Prohibit exotic species introductions	Unknown			U.S. Department of Agriculture, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	411	Set Delta water quality standards	Ongoing Current	FY 2005		California State Water Resources Control Board, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	4111	Public water projects implement water quality standards	Ongoing Not Current	FY 2005		California State Water Resources Control Board, State Water Project, Central Valley Project, U.S. Environmental Protection Agency	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	4112	Private water rights holders provide water	Unknown			California State Water Resources Control Board	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	41121	Implement water conservation practices	Unknown			California State Water Resources Control Board	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	41122	Flood releases to benefit Delta fish	Not Started			California State Water Resources Control Board	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	42	Review unlisted species to determine need for listing	Ongoing Not Current	FY 2005		U.S. Fish and Wildlife Service	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	4311	Manage dredging in Delta	Ongoing Current	FY 2005		U.S. Army Corps of Engineers	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	4312	Manage dredging in Suisun Bay and Suisun marsh	Not Started			U.S. Army Corps of Engineers	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	432	Increase ACE enforcement	Ongoing Current	FY 2005		California Department of Fish and Game, U.S. Army Corps of Engineers	Management	Internal Technical Assistance	

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Delta smelt (Hypomesus transpacificus)	2	44	Develop alternative levee maintenance	Ongoing Not Current	FY 2005		U.S. Army Corps of Engineers	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	51	Monitor Delta for location and numbers of fish	Ongoing Not Current	FY 2005		State Water Project, Central Valley Project, California Department of Fish and Game	Management	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	510	Investigate restoring Delta islands as shallow-water habitat	Not Started			California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	511	Investigate feasibility of reintroducing sacramento perch into Delta	Not Started			California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	52	Develop fish screening criteria	Ongoing Current	FY 2005		State Water Project, Central Valley Project, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	53	Conduct toxicology investigations	Unknown			State Water Project, U.S. Fish and Wildlife Service, Central Valley Project, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	54	Study introduced species	Ongoing Not Current	FY 2005		State Water Project, Central Valley Project, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	56	Develop or improve salmon models	Unknown			California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	57	Monitor for Sacramento River late fall-run chinook	Unknown			California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	581	Survey for delta smelt in San Joaquin River	Ongoing Current	FY 2005		State Water Project, Central Valley Project, California Department of Fish and Game	Research	Internal Technical Assistance	

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Delta smelt (Hypomesus transpacificus)	2	582	Monitor location of 2 ppt isohaline	Ongoing Current	FY 2005		State Water Project, Central Valley Project, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	59	Investigate fish use of shallow-water habitat, flooded vegetation, tidal marshes	Ongoing Not Current	FY 2005		California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	2	6	Assess and reprioritize recovery management actions	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	71	Assess public attitudes	Not Started			U.S. Fish and Wildlife Service	Research	Internal Technical Assistance	
Delta smelt (Hypomesus transpacificus)	3	72	Develop and implement out-reach and education program	Unknown			U.S. Fish and Wildlife Service	Research	Internal Technical Assistance	